

**REMARKS**

The object of the present invention is to provide an optical element such as a multilayer film reflector and the like having a structure capable of simply correcting a wave front. To achieve this object in the present invention adjusts a wavefront phase of the emerging rays by cutting away a portion of the multilayer film in accordance with an amount of adjustment of the wavefront phase. That is to say the step of adjusting a wavefront phase of the emerging rays involves cutting the multilayer itself and not by cutting a portion of the surface (the absorber film).

In the last action the Examiner takes the position that the primary reference Sweett et al. teaches a method comprising the steps of forming a multilayer film (Fig. 1, #110) on a substrate (Fig. 1#120) and adjusting a wavefront phase by cutting a portion of a surface thereby roughing the surface.

However, nowhere in the four corners of Sweett et al is there any teaching or suggestion the film should be composed of alternating layers of high and low refractive index materials as required by Applicant's claims.

The Examiner also states that Sweett et al. modifies an absorber film to compensate for the local disturbance. However, in Sweett et al. the modification step comprises adjusting a wavefront phase by cutting a portion of the surface. In other words according to Sweett et al. the absorber film is the portion of the surface that is cut. Thus, Sweett et al. is deficient on several grounds.

It is not seen that any of the secondary references supply the missing teachings to Sweett et al. to achieve or render obvious Applicant's claimed invention.

The Examiner cites Itou et al. as teaching the film composed of alternating layers of high and low refractive index materials. And, the Examiner cites Murakami as teaching a number of cycles larger than necessary to substantially saturate a reflectance. Even assuming the secondary references are as the Examiner states, still none of the cited prior art references teach or suggest the step of adjusting a wavefront phase of the emerging rays by cutting away a portion of the multilayer film in accordance with an amount of adjustment of the wavefront phase.

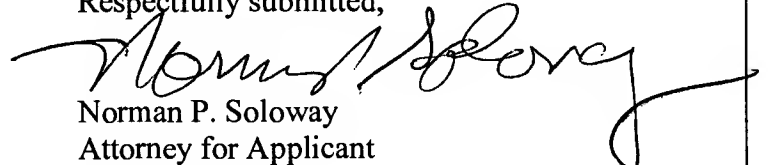
Thus, neither secondary reference alone nor in combination supply the missing teachings to Sweety et al. to achieve or render obvious Applicant's obvious claimed invention, and no combination of Sweety et al. with either or both of the secondary references can be said to achieve or render obvious the claimed invention.

Form PTO-2038 for \$790.00 to cover the RCE fees is enclosed.

Having dealt with all the objections raised by the Examiner, the Application is believed to be in order for allowance. Early and favorable action are respectfully requested.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account Number 08-1391.

Respectfully submitted,

  
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